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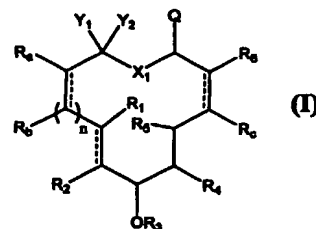
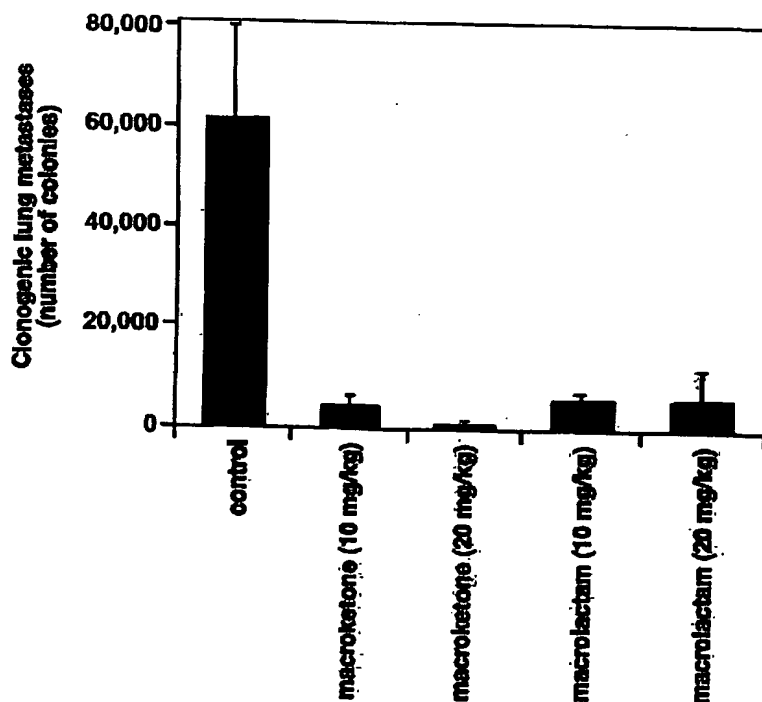
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(54) Title: **MIGRASTATIN ANALOGS AND USES THEREOF**



(57) Abstract: The present invention provides compounds having formula (I), and additionally provides methods for the synthesis thereof, compositions thereof, and methods for the use thereof in the treatment of various disorders including cancer, metastasis and disorders involving increased angiogenesis, wherein  $R_1$ - $R_6$ ,  $R_8$ - $R_9$ ,  $Q$ ,  $Y_1$ ,  $Y_2$  and  $n$  are as defined herein.



Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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- with international search report
- with amended claims and statement

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

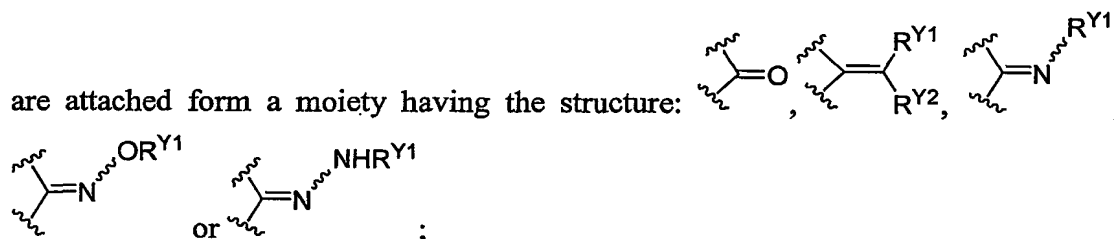
## AMENDED CLAIMS

[received by the International Bureau on 22 November 2004 (22.11.04);  
claim 1 amended, claims 71-78 new]

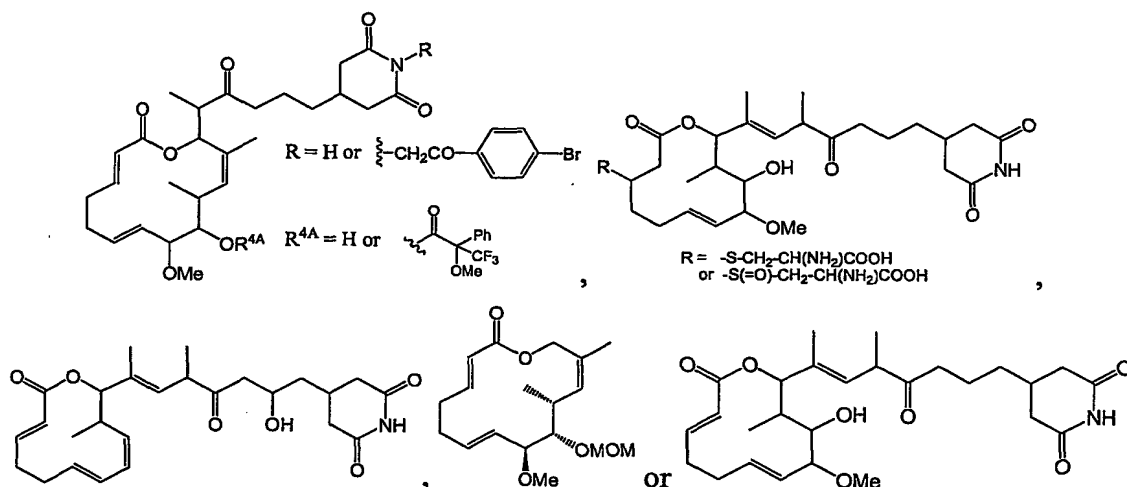
independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety;

$Y_1$  and  $Y_2$  are independently hydrogen, an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $-WR^{Y1}$ ; wherein W is independently -O-, -S- or  $-NR^{Y2}$ -, wherein each occurrence of  $R^{Y1}$  and  $R^{Y2}$  is independently hydrogen, or an aliphatic, heteroaliphatic, alicyclic, heteroalicyclic, aryl or heteroaryl moiety; or  $Y_1$  and  $Y_2$  together with the carbon atom to which they

are attached form a moiety having the structure:



with the proviso that the compound does not have one of the following structures:



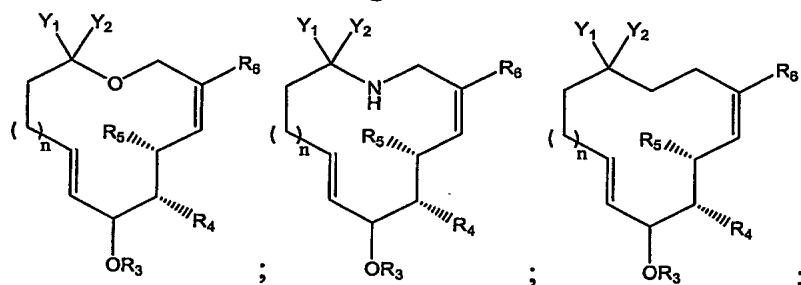
2. The compound of claim 1, wherein:

$R_1$  and  $R_2$  are each independently hydrogen or substituted or unsubstituted lower alkyl; or  $R_1$  and  $R_2$ , taken together with the carbon atoms to which they are attached, form an epoxide, an aziridine or a substituted or unsubstituted cyclopropyl moiety;

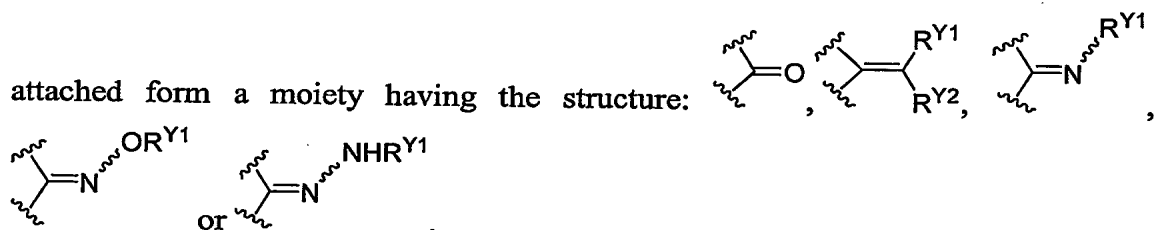
$R_3$  is hydrogen, or substituted or unsubstituted lower alkyl or aryl; a prodrug moiety or an oxygen protecting group;

70. The method of claim 69 wherein the undesired angiogenesis occurs in syphilis, Mycobacteria infections, Herpes simplex infections, Herpes zoster infections, protozoan infections, in toxoplasmosis or Bartonellosis.

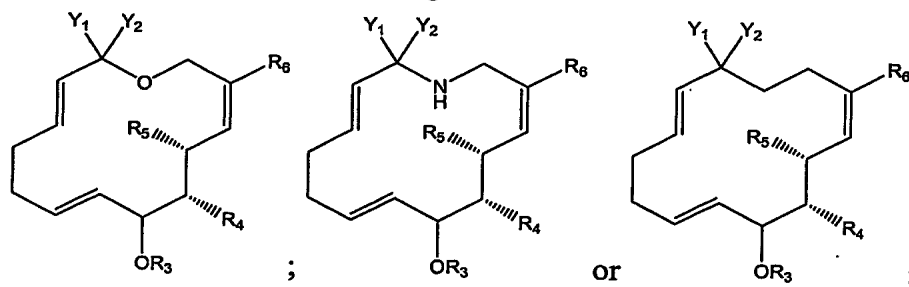
71. The compound of claim 7 having one of the structure:



wherein  $Y_1$  and  $Y_2$  are independently hydrogen, an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; or  $-WR^{Y1}$ ; wherein W is independently -O-, -S- or  $-NR^{Y2}$ -, wherein each occurrence of  $R^{Y1}$  and  $R^{Y2}$  is independently hydrogen, or an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; or  $Y_1$  and  $Y_2$  together with the carbon atom to which they are



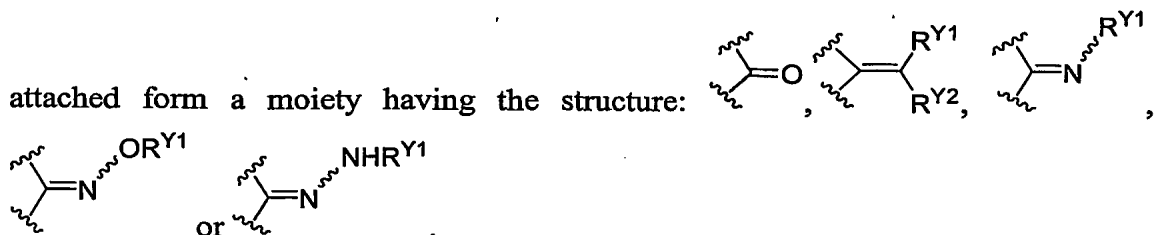
72. The compound of claim 8 having one of the structure:



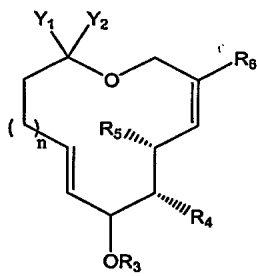
wherein  $Y_1$  and  $Y_2$  are independently hydrogen, an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety; or  $-WR^{Y1}$ ; wherein W is independently -O-, -S- or  $-NR^{Y2}$ -, wherein each occurrence of  $R^{Y1}$  and  $R^{Y2}$  is independently hydrogen, or an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl

or heteroaryl moiety; or  $Y_1$  and  $Y_2$  together with the carbon atom to which they are

attached form a moiety having the structure:

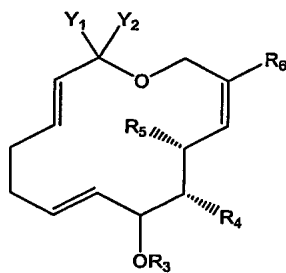


73. The compound of claim 71 having the structure:



wherein  $n$  is 3; and  $Y_1$  and  $Y_2$  are independently hydrogen, an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety.

74. The compound of claim 72 having the structure:




wherein  $Y_1$  and  $Y_2$  are independently hydrogen, an alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl moiety.

75. The compound of claim 73 or 74, wherein  $R_5$  and  $R_6$  are each methyl.

76. The compound of claim 73 or 74, wherein  $R_3$  is lower alkyl.

77. The compound of claim 76, wherein  $R_3$  is methyl.

78. The compound of claim 73 or 74, wherein  $R_4$  is OH, OAc,  $NH_2$  or halogen, or  $R_4$  taken together with the carbon atom to which it is attached forms a moiety

having the structure:  .

**STATEMENT UNDER ARTICLE 19**

Applicant respectfully submits that no new matter is presented with the amendment set forth in the "Letter for PCT Article 19 Amendment of Claims" filed concurrently herewith. Specifically, claim 1 has been amended in order to more clearly set forth what is intended as Applicants' invention (*i.e.*, to exclude compound 15 disclosed in Scheme 18 page 145 of the specification). Applicant had acknowledged their own preliminary work in the application as originally filed (See paragraphs [0376] through [0380] on pages 144-145 of the specification), which preliminary work was published in *Tet. Lett.*, 2002, 43, 9039 (See paragraph [0630] on page 211 of the application, as filed). Naturally, Applicant did not intend to encompass compounds known in the art at the time the application was filed. Applicant has amended claim 1 to reflect this.

Newly added claims 71-78 find support in the specification and claims, as originally filed. Specifically, claims 71-74 find support on page 141 of the specification, as well as in original claims 7 and 8. Support for new claims 75-78 can be found, for example, in original claims 10-13.

Applicant respectfully requests entry and consideration of this amendment in processing the application.